

POLARA

AWK-SERIES

16 PIN, 5 TAP, ECL ACTIVES

DC Electrical Characteristics					
Parameter	*Test Conditions	Min	Max	Unit	
V_{OH}	High Level Output Voltage	$V_{IL} = \text{Min}$	-960		mV
V_{OHT}	High Level Output Threshold Voltage		-980		mV
V_{OLT}	Low Level Output Threshold Voltage		-1630		mV
V_{OL}	Low Level Output Voltage	$V_{IH} = \text{MAX}$	-1650		mV
I_{IH}	High Level Input Current	$V_{IH} = \text{Max}$	265	uA	
I_{IL}	Low Level Input Current	$V_{IL} = \text{Min}$	0.5		uA
I_{EE}	V_{EE} Supply Current		50		mA

* ($V_{CC1} = V_{CC2} = \text{GND}$, $V_{EE} = 5.2V \pm 0.01V$, Output Loading with 50Ω to $-2.0V \pm 0.01V$)

Recommended Operating Conditions				
Parameter	Min	Max	Unit	
V_{EE}	Supply Voltage (Negative)	4.94	5.46	V
V_{CC}	Circuit Ground (Pins 1 and 16)	0	0	V
V_{IH}	High Level input Voltage	-980	-810	mV
V_{IHT}	High Level Input Threshold Voltage	-1105		mV
V_{IL}	Low Level input Voltage	-1850	-1630	mV
V_{ILT}	Low Level Input Threshold Voltage		-1475	mV
P_W	Pulse Width % of Total Delay	40		%
T_A	Operating Free-Air Temperature	-30	+80	°C

Input Pulse Test Conditions @ 25°C			Unit
V_{IN}	Pulse Input Voltage	-1.0V (-0.75 to 1.75V)	
P_W	Pulse Width	3 x Max Delay	
T_{RI}	Pulse Rise Time(20% to 80%)	2 nS	
P_{RR}	Pulse	10 x T_d	
V_{EE}	Supply Voltage	-5.2V	

TAP 1	TAP 2	TAP 3	TAP 4	OUTPUT	RISE TIME	POLARA P/N
nS ± 5%	nS MAX	AWK - PINOUT				
3.0 TYP*	4 ± 0.5	5 ± 0.5	6 ± 0.5	7 ± 0.5	4	AWK-0007
3.0 TYP*	5 ± 0.5	7 ± 0.5	9 ± 0.5	11 ± 0.5	4	AWK-0011
3.0 TYP*	6 ± 0.5	9 ± 0.5	12 ± 1.0	15 ± 1.5	4	AWK-0015
4 ± 1.0	8 ± 0.5	12 ± 1.0	16 ± 1.5	20 ± 2.0	4	AWK-0020
5 ± 1.0	10 ± 1.0	15 ± 1.5	20 ± 2.0	25 ± 2.0	4	AWK-0025
6 ± 1.0	12 ± 1.0	18 ± 1.5	24 ± 2.0	30 ± 2.0	4	AWK-0030
8 ± 1.0	16 ± 1.5	24 ± 2.0	32 ± 2.0	40	5	AWK-0040
10 ± 1.0	20 ± 2.0	30 ± 2.0	40	50	5	AWK-0050
15 ± 1.5	30 ± 2.0	45	60	75	8	AWK-0075
20 ± 2.0	40	60	80	100	10	AWK-0100
30 ± 2.0	60	90	120	150	15	AWK-0150
40	80	120	160	200	20	AWK-0200
50	100	150	200	250	25	AWK-0250
60	120	180	240	300	30	AWK-0300
70	140	210	280	350	35	AWK-0350
80	160	240	320	400	40	AWK-0400
90	180	270	360	450	45	AWK-0450
100	200	300	400	500	50	AWK-0500

Delay Time measured at -1.3V, no load

Delay Times referenced from Input to Leading Edges

* Inherent Delay

Rise Time measured from 20% to 80%

Output terminated (externally) with 50Ω to -2.0VDC

